

FORM
6Rev
11/20

State of Colorado

Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109



DE ET OE ES

Document Number:

403542786

Date Received:

09/27/2023

WELL ABANDONMENT REPORT

This form is to be submitted as an Intent to Abandon whenever an abandonment is planned on a borehole. After the abandonment is complete, this form shall again be submitted as a Subsequent Report of the actual work completed. The approved intent shall be valid for six months after the approval date, after that period, a new intent will be required. Attachments required with the Intent to Abandon are wellbore diagrams of the current configuration and the proposed configuration with plugs set.

A Subsequent Report of Abandonment shall indicate the actual work completed. Attachments required with a Subsequent Report are a wellbore diagram showing plugs that were set and casing remaining in the hole, the job summaries from all plugging contractors used, including wireline and cementing (third party verification) and any logs that may have been run during abandonment.

OGCC Operator Number: 69175

Contact Name: Valerie Danson

Name of Operator: PDC ENERGY INC

Phone: (970) 506-9272

Address: 1099 18TH STREET SUITE 1500

Fax:

City: DENVER State: CO Zip: 80202

Email: regulatory@pdce.com

For "Intent" 24 hour notice required,

Name: Evins, Bret

Tel: (970) 420-6699

COGCC contact:

Email: bret.evins@state.co.us

Type of Well Abandonment Report: ☒ Notice of Intent to Abandon ☐ Subsequent Report of Abandonment

API Number 05-123-21919-00

Well Name: COCKROFT

Well Number: 44-11

Location: QtrQtr: SESE Section: 11 Township: 6N Range: 64W Meridian: 6

County: WELD

Federal, Indian or State Lease Number:

Field Name: WATTENBERG

Field Number: 90750

Only Complete the Following Background Information for Intent to Abandon

Latitude: 40.494920

Longitude: -104.509500

GPS Data: GPS Quality Value: 4.8 Type of GPS Quality Value: PDOP Date of Measurement: 11/21/2006

Reason for Abandonment: ☐ Dry ☒ Production Sub-economic ☐ Mechanical Problems☐ OtherCasing to be pulled: ☐ Yes ☒ No Estimated Depth:Fish in Hole: ☐ Yes ☒ No If yes, explain details belowWellbore has Uncemented Casing leaks: ☐ Yes ☒ No If yes, explain details below

Details:

Current and Previously Abandoned Zones

Formation	Perf. Top	Perf. Btm	Abandoned Date	Method of Isolation	Plug Depth
NIOBRARA-CODELL	6590	6882			

Total: 1 zone(s)

Casing History

Casing Type	Size of Hole	Size of Casing	Grade	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top	Status
SURF	12+1/4	8+5/8	J55	24	0	443	275	443	0	VISU
1ST	7+7/8	4+1/2	J55	10.5	0	7053	150	7053	6015	CBL
S.C. 1.1						7053	270	4513	2893	CBL
S.C. 1.2						2774	806	2774	114	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 6540 with 2 sacks cmt on top. CIBP #2: Depth 2500 with 2 sacks cmt on top.
CIBP #3: Depth _____ with _____ sacks cmt on top. CIBP #4: Depth _____ with _____ sacks cmt on top.
CIBP #5: Depth _____ with _____ sacks cmt on top.

NOTE: Two(2) sacks cement required on all CIBPs.

Set _____ sks cmt from _____ ft. to _____ ft. Plug Type: _____ Plug Tagged: ☐
Set _____ sks cmt from _____ ft. to _____ ft. Plug Type: _____ Plug Tagged: ☐
Set _____ sks cmt from _____ ft. to _____ ft. Plug Type: _____ Plug Tagged: ☐
Set _____ sks cmt from _____ ft. to _____ ft. Plug Type: _____ Plug Tagged: ☐
Set _____ sks cmt from _____ ft. to _____ ft. Plug Type: _____ Plug Tagged: ☐

Perforate and squeeze at 100 ft. with 26 sacks. Leave at least 100 ft. in casing _____ CICR Depth
Perforate and squeeze at _____ ft. with _____ sacks. Leave at least 100 ft. in casing _____ CICR Depth
Perforate and squeeze at _____ ft. with _____ sacks. Leave at least 100 ft. in casing _____ CICR Depth

(Cast Iron Cement Retainer Depth)

Set 124 sacks half in. half out surface casing from 1630 ft. to 0 ft. Plug Tagged: ☒

Set _____ sacks at surface

Cut four feet below ground level, weld on plate Above Ground Dry-Hole Marker: ☐ Yes ☐ No

Set _____ sacks in rat hole Set _____ sacks in mouse hole

Additional Plugging Information for Subsequent Report Only

Casing Recovered: _____ ft. of _____ inch casing

Surface Plug Setting Date: _____ Cut and Cap Date: _____ Number of Days from Setting Surface Plug to Capping or Sealing the Well: _____

*Wireline Contractor: _____ *Cementing Contractor: _____

Type of Cement and Additives Used: _____

Flowline/Pipeline has been abandoned per Rule 1105 ☐ Yes ☐ No

Technical Detail/Comments:

Cockroft 44-11 (05-123-21919)/Plugging Procedure (Intent)
Producing Formation: Niobrara/Codell: 6590'-6882'
Upper Pierre Aquifer: 350'-1530'
TD: 7056' PBTD: 7034' (2/27/13)
Surface Casing: 8 5/8" 24# @ 443' w/ 275 sxs cmt
Production Casing: 4 1/2" 10.5# @ 7053' w/ 1226 sxs cmt (TOC @ 114' - CBL)

Tubing: 2 3/8" tubing set @ 6858' (9/21/23)

Proposed Procedure:

1. MIRU pulling unit. Pull 2 3/8" tubing.
2. RU wireline company.
3. TIH with CIBP. Set BP at 6540'. Top with 2 sxs 15.8#/gal CI G cement. (Top of Nio perms @ 6590')
4. TIH with CIBP. Set BP at 2500'. Top with 2 sxs 15.8#/gal CI G cement.
5. Wait a sufficient time to confirm static conditions. If at any time after placing this plug there is evidence of pressure or fluid migration, contact engineering before continuing operations.
6. TIH with perforation gun. Shoot holes at 100'.
7. TIH with tubing to 1630'. RU cementing company. Mix and pump 124 sxs 15.8#/gal CI G cement down tubing. (Pierre Coverage from 1630' to surface) Cement should circulate to surface.
8. Close off casing returns. Hook up cement line to cement flange and pump 26 sxs 15.8#/gal CI G cement downhole and squeeze through perms at 100' into annular space. Cement should circulate to surface.
9. Well casing cut and capped per COGCC guidelines at a depth as not to interfere with soil cultivation.

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: _____ Print Name: Valerie Danson
Title: Reg Analyst Date: 9/27/2023 Email: valerie.danson@pdce.com

Based on the information provided herein, this Well Abandonment Report (Form 6) complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: JENKINS, STEVE Date: 10/10/2023

CONDITIONS OF APPROVAL, IF ANY: _____ Expiration Date: 4/9/2024

COA Type	Description
	<p>FLOWLINE AND SITE CLOSURE</p> <p>1) Consistent with Rule 911.a, a Form 27 must be approved prior to cut and cap, conducting flowline abandonment, or removing production equipment. Allow 30 days for Director review of the Form 27; include the Form 27 document number on the Form 44 for offsite flowline abandonment (if applicable) and on the Form 6 Subsequent.</p> <p>2) Properly abandon flowlines per Rule 1105. If flowlines will be abandoned in place, include with the Form 27: pressure test results conducted in the prior 12 months as well as identification of any document numbers for a ECMC Spill/Release Report, Form 19, associated with the abandoned line.</p>
	<p>1) Provide 2 business day notice of plugging MIRU via electronic Form 42, and provide 48 hours Notice of Plugging Operations, prior to mobilizing for plugging operations via electronic Form 42. These are 2 separate notifications, required by Rules 405.e and 405.l.</p> <p>2) Prior to placing the 1630' plug: verify that all fluid migration (liquid and gas) has been eliminated. If evidence of fluid migration or pressure remains, contact ECMC Engineer for an update to plugging orders.</p> <p>3) After isolation has been verified, pump surface casing shoe plug. If cement is not circulated to surface, shut-in, WOC 4 hours then tag plug – must be at 393' or shallower and provide 10 sx plug at the surface.</p> <p>4) Leave at least 100' of cement in the wellbore for each plug without mechanical isolation.</p> <p>5) Prior to cut and cap, verify isolation by either a 15 minute bubble test or 15 minute optical gas imaging recording. If there is indication of flow contact ECMC Engineering. Provide a statement on the 6SRA which method was used and what was observed. Retain records of final isolation test for 5 years.</p> <p>6) With the Form 6 SRA operator must provide written documentation which positively affirms each COA listed above has been addressed.</p>
	Operator shall implement measures to control venting, to protect health and safety, and to ensure that vapors and odors from well plugging operations do not constitute a nuisance or hazard to public welfare.
	<p>Prior to starting plugging operations a Bradenhead test shall be performed if there has not been a reported Bradenhead test within the 60 days immediately preceding the start of plugging operations.</p> <p>1) If, before opening the Bradenhead valve, the beginning pressure is greater than 25 psi, sampling is required.</p> <p>2) If pressure remains at the conclusion of the test, or if any liquids were present during the test, sampling is required.</p> <p>The Form 17 shall be submitted within 10 days of the test. Sampling shall comply with Operator Guidance - Bradenhead Testing and Reporting Instructions. If samples are collected, copies of all final laboratory analytical results shall be provided to the ECMC within three (3) months of collecting the samples.</p>
	OGLA review complete. Well is in the the recently approved (10/5/2023) 2023 Mule Deer Severe Winter Range HPH. Although plugging and abandonment operations with heavy equipment will be allowed, the operator is strongly encouraged to avoid them from December 1 through April 30.
	Well is in a CPW mapped (2022) Pronghorn Winter Concentration Area High Priority Habitat. Although plugging and abandonment operations with heavy equipment will be allowed, the operator is strongly encouraged to avoid them from January 1 through April 30.
	Due to the proximity to a mapped wetland, operator will use secondary containment for all tanks and other liquid containers. Operator will implement stormwater BMPs and erosion control measures to prevent sediment and stormwater runoff from entering the wetlands.
	Due to close proximity to Residential Building Units (RBUs), prior to commencing operations, at a minimum, the operator will provide an informational sheet to the owners/occupants of the RBUs nearby and adjacent to the parcel with the well. The sheet will include the operator's contact information and the nature, timing, and expected duration of the P&A operations.
8 COAs	

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
403542786	FORM 6 INTENT SUBMITTED
403542803	WELLBORE DIAGRAM
403542804	WELLBORE DIAGRAM

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Engineer	1) Deepest Water Well within 1 mile = 64'. 2) Fox Hills Bottom- N/A, per SB5.	10/10/2023
Permit	Confirmed as-drilled well location. No other forms in process. Production reporting up-to-date. Confirmed productive interval docnum: 400600394. Reviewed WBDs. Pass.	09/28/2023

Total: 2 comment(s)